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EXAMINER

JONES, HEATHER RAE

ART UNIT	PAPER NUMBER
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2621

NOTIFICATION DATE	DELIVERY MODE
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ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No. 10/603,357	Applicant(s) BRAUN ET AL.	
	Examiner HEATHER R. JONES	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 April 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-53 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 June 2003 and 07 April 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed April 1, 2010 have been fully considered but they are not persuasive.

The Applicant argues that Chambers et al. in view of Suzuki et al. fail to disclose the limitation "wherein the cue is configured to cause a modification with respect to the abstract visual presentation in synchronization with the audio presentation when played back" in claim 21. The Examiner respectfully disagrees. Suzuki et al. discloses abstract visual presentations as motion waveforms which can be seen in Fig. 8, display box "70". Furthermore, cues can be inserted into the audio presentation to distinguish certain characteristic of music (Fig. 6 - two types of cues can be seen being used to designate information, the arrows and the bars; col. 12, line 30 - col. 13, line 3 - the operator can edit the cues; col. 13, line 28 - col. 15, line 38 - motion and scene components (cues) can be edited according to the user's liking). In col. 18, lines 14-26 Suzuki et al. discloses how the motion waveform can be modified during the presentation according to all the parameters and cues taken into account, for example, the motion waveform for a cymbal can be controlled to appear as if the cymbal is moving along with the velocity of the sound coming from the cymbal. Suzuki et al. also discloses avoiding unnatural or awkward images meaning that if the tempo is fast then the motion waveform is fast because if the motion waveform was seen to be moving at a slower tempo as the

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music it would appear to be unnatural and not properly portray the music (col. 18, lines 1-3). Therefore, Suzuki et al. meets the claimed limitation and the rejection is maintained.

The Applicant argues that Chambers et al. in view of Suzuki et al. fail to disclose the limitation "providing for display via the interactive user interface at least left and right audio channel waveforms" in claim 22. The Examiner respectfully disagrees. Chambers et al. discloses in Fig. 3 meter bars (106 and 108) that display the meter bands for the left and right channel as well as a scrolling graph (104) that displays the amplitude (waveform) of the left and right channels. Furthermore, the claim does not require the left and right channel waveforms be independent from one another. Therefore, Chambers et al. meets the claimed limitation and the rejection is maintained.

The Applicant argues that Chambers et al. in view of Suzuki et al. fail to disclose the limitations "wherein the first signal indicates the beginning of a guitar riff" in claim 23, "inserting at least one cue with respect to the audio based at least in part on a singer's singing" in claim 27, and "inserting at least one cue with respect to the audio based at least in part on information from a microphone and/or based at least in part on information from a vibration sensor located near an instrument". The Examiner respectfully disagrees. Suzuki et al. discloses in Fig. 9 the motion waveform for the guitar (col. 14, lines 25-36). Furthermore, Suzuki discloses in col. 12, line 30 - col. 15, line 38 a cue insertion interface allowing the user to designate points in the audio they would like to be cued,

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whether it be a guitar riff, a person singing, or parts indicated by the motion waveforms. Therefore, by allowing the user to insert cues according to the user's liking Suzuki et al. meets the claimed limitations and the rejection is maintained.

The Applicant argues that Chambers et al. in view of Suzuki et al. fail to disclose the limitations "automatically inserting at least one cue with respect to the audio based at least in part on a signal received from an automated lighting system used to light a live performance" in claim 24, "wherein the signal from the automated lighting system is a spotlight-on signal, a spotlight color signal, or a spotlight position signal" in claim 25, or "inserting at least one cue with respect to the audio based at least in part on monitoring of stage light effects" in claim 26".

The Examiner respectfully disagrees. Suzuki et al. discloses in Fig. 9, section 81 a light area that can be seen to have cues in the row marked lighting.

Furthermore, Suzuki et al. discloses in col. 2, lines 35-43 and col. 14, lines 37-53 acquiring lighting information along with all of the background information going on during the performance. Suzuki et al. also discloses in col. 12, line 30 - col. 15, line 38 a cue insertion interface allowing the user to designate points in the presentation they would like to be cued. Therefore, Suzuki et al. meets the claimed limitations and the rejection is maintained.

The Applicant argues that Chambers et al. in view of Suzuki et al. fail to disclose the limitations "using a mixing board automation to generate at least one cue" in claim 32, "using a track pan value to generate a cue" in claim 33, or "using track fader adjustments, bus volumes, and/or effects send and return levels

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to generate one or more cues" in claim 34. The Examiner respectfully disagrees. As been stated above, Suzuki et al. also discloses in col. 12, line 30 - col. 15, line 38 a cue insertion interface allowing the user to designate points in the presentation they would like to be cued along with analyzing the volume of the audio (col. 18, lines 14-26). Furthermore, Suzuki et al. has already been combined with Chambers et al. at this point and therefore the use of a mixing board and track pan values by Chamber et al. can be used in the aid of inserting a cue into the presentation data. Therefore, Chambers in view of Suzuki et al. meet the claimed limitations and the rejection is maintained.

Regarding the arguments for claim 37, a reference (Kryuchkov et al.) is being supplied for the Official Notice that was originally taken for this claim.

2. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).
3. Applicant's arguments, filed April 1, 2010, with respect to the rejection(s) of claim(s) 29-30 and 35 under have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of a well known process or a different interpretation of a previously applied prior art reference.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 21-36, 38-41, and 43-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chambers et al. (U.S. Patent Application Publication 2003/0236581) in view of Suzuki et al. (U.S. Patent 6,245,982).

Regarding claim **21**, Chambers et al. discloses a method of providing synchronization of a video presentation with an audio presentation, comprising: providing for display on a user system an interactive user interface (Figs. 3-5), the interactive user interface including: an audio waveform corresponding to digital samples of audio over time (Fig. 3); time information displayed in association with the audio waveform (time information can be seen on the x-axis of the audio waveform diagram in the window (104) in Fig. 3). However, Chambers et al. fails to disclose a cue insertion interface that enables a user to insert cue at one or more locations with respect to the audio waveform, wherein the cue is configured to cause a modification with respect to the abstract visual presentation in synchronization with the audio presentation when played back; receiving a first signal from a user input device to designate a cue at a first location with respect to the audio waveform; and storing the designated cue in computer readable memory.

Referring to the Suzuki et al. reference, Suzuki et al. discloses a method of providing synchronization of a video presentation with an audio presentation, comprising: a method of providing synchronization of a video presentation with an audio presentation (Figs. 6, 8, and 9), comprising: a cue insertion interface that enables a user to insert cue at one or more locations with respect to the audio waveform (Fig. 6 – two types of cues can be seen being used to designate information, the arrows and the bars; col. 12, line 30 – col. 13, line 3 - the operator can edit the cues; col. 13, line 28 - col. 15, line 38 - motion and scene components (cues) can be edited according to the user's liking), wherein the cue is configured to cause a modification with respect to the abstract visual presentation in synchronization with the audio presentation when played back (col. 18, lines 14-26 - the motion waveform is changed according to the motion components); receiving a first signal from a user input device to designate a cue at a first location with respect to the audio waveform (Fig. 6 – two types of cues can be seen being used to designate information, the arrows and the bars; col. 12, line 30 – col. 13, line 3 - the operator can edit the cues; col. 13, line 28 - col. 15, line 38 - motion and scene components (cues) can be edited according to the user's liking); and storing the designated cue in computer readable memory (col. 14, lines 8-13).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have allowed the user to edit and insert cues along the audio waveform as disclosed by Suzuki et al. in the method disclosed

by Chambers et al. in order to modify the visual presentation of the audio during playback to further engage the user.

Regarding claim **22**, Chambers et al. in view of Suzuki et al. discloses all the limitations as previously discussed with respect to claim 21 including that the method further comprising providing for display via the interactive user interface at least left and right audio channel waveforms (Chambers et al.: Figs. 3-5 – reference characters (106) and (108) along with (104) display the left and right channels; paragraph [0097]).

Regarding claim **23**, Chambers et al. in view of Suzuki et al. discloses all the limitations as previously discussed with respect to claim 21, but fails to explicitly disclose that the first signal indicates the beginning of a guitar rift. However, Suzuki et al. discloses in Fig. 9 capturing the waveform of the guitarist (col. 14, lines 25-36). Suzuki et al. also discloses a cue insertion interface that enables a user to insert cue at one or more locations with respect to the audio waveform (Fig. 6 – two types of cues can be seen being used to designate information, the arrows and the bars; col. 12, line 30 – col. 13, line 3 - the operator can edit the cues; col. 13, line 28 - col. 15, line 38 - motion and scene components (cues) can be edited according to the user's liking). Therefore, the user would be able to insert a cue to mark the guitar if one desired.

Regarding claim **24**, Chambers et al. in view of Suzuki et al. discloses all the limitations as previously discussed with respect to claim 21 including that the method further comprising automatically inserting at least one cue with respect to

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the audio based at least in part on a signal received from an automated lighting system used to light a live performance (Suzuki et al.: Fig. 9 – section 81; col. 2, lines 35-43; col. 14, lines 37-53).

Regarding claim **25**, Chambers et al. in view of Suzuki et al. discloses all the limitations as previously discussed with respect to claims 21 and 24 including that the signal from the automated lighting system is a spotlight-on signal, a spotlight color signal, or a spotlight position signal (Suzuki et al: Fig. 9 – section 81 - this signal signifies when the spotlight was on; col. 2, lines 35-43; col. 14, lines 37-53).

Regarding claim **26**, Chambers et al. in view of Suzuki et al. discloses all the limitations as previously discussed with respect to claim 21 including that the method further comprising inserting at least one cue with respect to the audio based at least in part on monitoring of stage lighting effects (Suzuki et al: Fig. 9 – section 81 - this signal signifies when the spotlight was on; col. 2, lines 35-43; col. 14, lines 37-53).

Regarding claim **27**, Chambers et al. in view of Suzuki et al. discloses all the limitations as previously discussed with respect to claim 21 including that the method further comprising inserting at least one cue with respect to the audio based at least in part on a singer's singing (Suzuki et al.: Fig. 9 - section (81) – the singers are monitored - Chorus (P4); Fig. 6 – two types of cues can be seen being used to designate information, the arrows and the bars; col. 12, line 30 – col. 13, line 3 - the operator can edit the cues; col. 13, line 28 - col. 15, line 38 -

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motion and scene components (cues) can be edited according to the user's liking).

Regarding claim **28**, Chambers et al. in view of Suzuki et al. discloses all the limitations as previously discussed with respect to claim 21 including that the method further comprising inserting at least one cue with respect to the audio based at least in part on information from a microphone and/or based at least in part on information from a vibration sensor located on or near an instrument (Suzuki et al.: Figs. 4A-4C, 7A-7E, and 8; col. 8, line 57 – col. 9, line 61).

Regarding claims **29**, **30**, and **31**, Chambers et al. in view of Suzuki et al. discloses all the limitations as previously discussed with respect to claim 21, but fails to disclose analyzing a song by inserting at least one cue with respect to the audio based at least in part on a filter analysis on the power of a plurality of audio frequency bands, wherein the filter analysis cue includes a value to indicate an audio frequency band's strength over an interval of time, or wherein the filter analysis cue includes an indication that a signal of a selected frequency component of having a strength above a predetermined threshold value is present in the audio waveform. Official Notice is taken that it is well known in the art to have performed song analysis using a filter to determine the frequency components of a song. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included a filter to analyze the song according to the frequency components and whether or not the

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value of the frequency component was above a certain threshold in order to further enhance the display to match the audio more precisely.

Regarding claim **32**, Chambers et al. in view of Suzuki et al. discloses all the limitations as previously discussed with respect to claim 21 including that the method further comprising using mixing board automation to generate at least one cue (Chambers et al.: paragraph [0005]).

Regarding claim **33**, Chambers et al. in view of Suzuki et al. discloses all the limitations as previously discussed with respect to claim 21 including that the method further comprising using a track pan value to generate a cue (Chambers et al.: the track pan value can be determined from looking at the distribution of the left and right channels as seen in Figs. 3-5).

Regarding claim **34**, Chambers et al. in view of Suzuki et al. discloses all the limitations as previously discussed with respect to claim 21 including that the method further comprising using track fader adjustments, bus volume, and/or effects send and return levels to generate one or more cues (Suzuki et al.: col. 18, lines 14-26 - volume).

Regarding claim **35**, Chambers et al. in view of Suzuki et al. discloses all the limitations as previously discussed with respect to claim 21, including using an output from a reverb device and/or compressor device to generate one or more cues (Suzuki et al.: col. 14, lines 25-36 – motion waveform for a guitar; when hooking up the components on the guitar to acquire the motion waveforms one could attach a sensor on to the reverb unit).

Regarding claim **36**, Chambers et al. in view of Suzuki et al. discloses all the limitations as previously discussed with respect to claim 21, but fails to disclose that the method further comprises providing for display text describing the cue with the cue, and providing for display abbreviated text describing a second cue in association with the second cue, wherein the abbreviation is performed at partly in response to a spacing of the second cue with respect to another cue. Official Notice is taken that it is well-known in the art to add text to a display to explain what is going on. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided for display text describing the cue with the cue, and providing for display abbreviated text describing a second cue in association with the second cue, wherein the abbreviation is performed at partly in response to a spacing of the second cue with respect to another cue in the method disclosed by Chambers et al. in view of Suzuki et al. in order to notify the user of what is going on during the audio presentation, which will further enhance the user's experience.

Regarding claim **38**, Chambers et al. in view of Suzuki et al. discloses all the limitations as previously discussed with respect to claim 21 including that the cue is a mood cue (Suzuki et al.: col. 15, lines 17-30 – effects-applying processes - all of these effect applying processes will create a certain mood for the viewer when the viewer plays back the presentation).

Regarding claim **39**, Chambers et al. in view of Suzuki et al. discloses all the limitations as previously discussed with respect to claim 21 including that the

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designated cue indicates the location of a beat in the audio waveform (Suzuki et al.: col. 17, lines 50-67 – beats are part of the tempo of the music).

Regarding claim **40**, Chambers et al. in view of Suzuki et al. discloses all the limitations as previously discussed with respect to claim 21 including that the cue includes a cue identifier indicating a cue type and data indicating a visualization engine that the cue identifier follows (Suzuki et al.: Fig. 6 – two types of cues can be seen being used to designate information, the arrows and the bars; col. 12, line 30 – col. 13, line 3 - the operator can edit the cues; col. 13, line 28 - col. 15, line 38 - motion and scene components (cues) can be edited according to the user's liking).

Regarding claim **41**, Chambers et al. in view of Suzuki et al. discloses all the limitations as previously discussed with respect to claim 21 including that the designated cue is included in a file separate from the audio presentation (Suzuki et al.: col. 17, lines 39-49 – each motion component is stored in the motion database, which is separate from the music file). However, Chambers et al. in view of Suzuki et al. fails to disclose that the method further comprises accessing the file over a network separately from the audio. Official Notice is taken that it is well known in the art to access files over a network. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have accessed the file containing the cues over a network in the method disclosed by Chambers et al. in view of Suzuki et al. in order to allow the method

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to be more versatile and user friendly by allowing the user to have access to more files that can be found over a network.

Regarding claim **43**, Chambers et al. in view of Suzuki et al. discloses all the limitations as previously discussed with respect to claim 21 including that the method further comprises: accessing the designated cue from memory; accessing the digital audio samples from memory; providing the audio presentation for display in association with the visual presentation using the designated cue (Suzuki et al.: Fig. 6 – two types of cues can be seen being used to designate information, the arrows and the bars; col. 12, line 30 – col. 13, line 3 - the operator can edit the cues; col. 13, line 28 - col. 15, line 38 - motion and scene components (cues) can be edited according to the user's liking; col. 17, lines 39-49 – playback; col. 18, lines 14-26 - the motion waveform is changed according to the motion components).,

Regarding claims **44-48**, these are medium claims corresponding to the method claims 21, 22, 24, 40, and 41 respectively. Therefore, claims 44-48 are analyzed and rejected as previously discussed with respect to claims 21, 22, 24, 40, and 41.

Regarding claims **49-53**, these are apparatus claims corresponding to the method claims 21, 22, 24, 40, and 41 respectively. Therefore, claims 49-53 are analyzed and rejected as previously discussed with respect to claims 21, 22, 24, 40, and 41.

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6. Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chambers in view of Suzuki et al. as applied to claim 1 above, and further in view of Kryuchkov et al. (U.S. Patent Application Publication 2004/0102244).

Regarding claim **37**, Chambers et al. in view of Suzuki et al. discloses all the limitations as previously discussed with respect to claim 21, but fails to disclose that the designated cue is a rotation cue indicating a rotation speed of at least a first displayed object.

Referring to the Kryuchkov et al. reference, Kryuchkov et al. discloses a presentation device wherein rotation cue (rotation information) indicating a rotation speed of at least a first displayed object as inputted by the user (paragraph [0205]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have allowed the user to input information in order to determine the rotation of an object while being displayed in the method disclosed by Chambers et al. in view of Suzuki et al. in order to enhance the user's experience. Furthermore, the information that is being inputted into the Kryuchkov et al. reference regarding the rotation of an object can be translated into inserting a cue into the Suzuki et al. reference in order to control the presentation display.

7. Claim 42 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chambers et al. in view of Suzuki et al. as applied to claim 21, and further in view of Nishitani et al. (U.S. Patent 7,161,079).

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Regarding claim **42**, Chambers et al. in view of Suzuki et al. discloses all the limitations as previously discussed with respect to claim 1, but fails to disclose that the designated cue is included embedded with the audio presentation.

Referring to the Nishitani et al. reference, Nishitani et al. discloses a method wherein the designated cue is included embedded with the audio presentation (Fig. 6; col. 8, lines 29-37).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to have embedded the cues with the audio presentation as disclosed by Nishitani et al. instead of in a separate file as disclosed by Suzuki et al. in order to easily correlate the audio sample with the cue rather than having to read two separate files and trying to correlate them. Also, embedding the cues into the audio presentation allows the cues to always be accessible because if they were stored in a separate location the other location may be unavailable for some reason.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HEATHER R. JONES whose telephone number is (571)272-7368. The examiner can normally be reached on Mon. - Thurs.: 7:00 am - 4:30 pm, and every other Fri.: 7:00 am - 3:30 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Heather R Jones
Examiner
Art Unit 2621

HRJ
July 3, 2010

/Thai Tran/
Supervisory Patent Examiner, Art Unit 2621